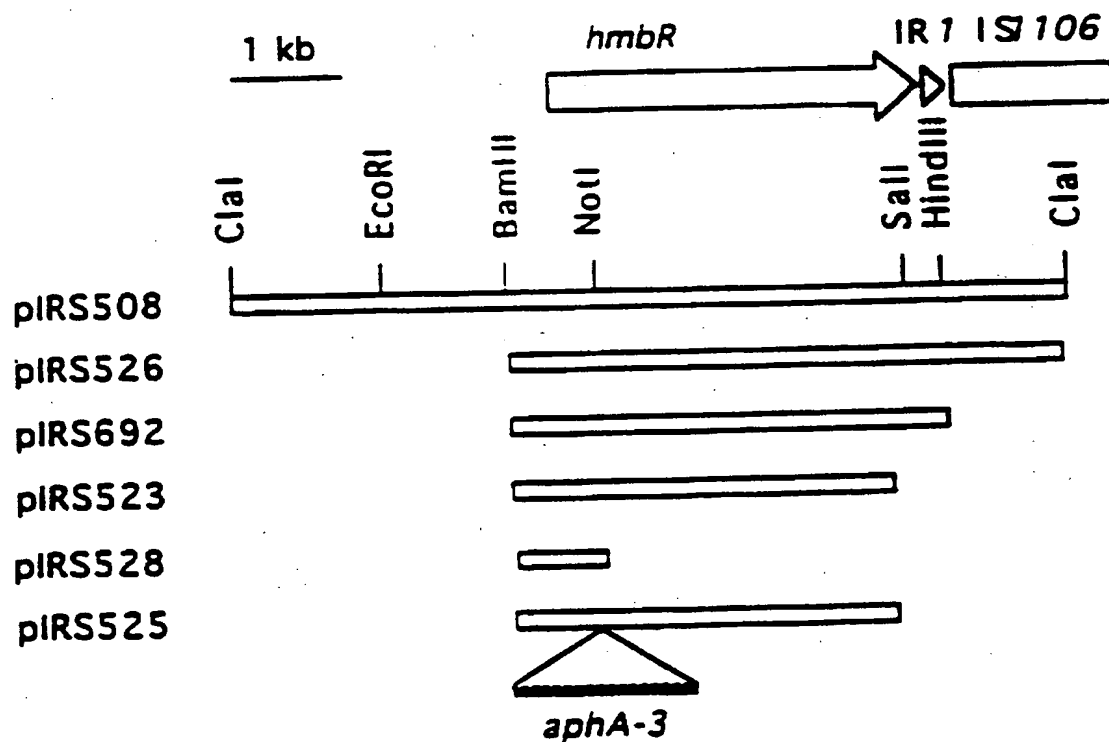


**Figure 1**



MetLysPrclE

FIG. 2B

SHEET 3/47

	510	
ACAAATGCTCCCTATCGCCGCGCTGGTCGGCAGTATTTTCGGCAATCCGGTCTTTGCGGC		
uGlnMetLeuProIleAlaAlaLeuValGlySerIlePheGlyAsnProValPheAlaAl		
560		
AGATGAAGCTGCAACTGAAACCAACACCCGTTAAGGCAGAGGTAAAGCAGTGCGCGTTAA		
aAspGluAlaAlaThrGluThrProValLysAlaGluValLysAlaValArgValLys		
610		660
AGGCCAGCGCAATGCGCCTGCGGCTGTGGAACGCGTCAACCTTAACCGTATCAAACAAGA		
sGlyGlnArgAsnAlaProAlaAlaValGluArgValAsnLeuAsnArgIleLysGlnG		710
AATGATACGCGACAACAAGACTTGGTGGCTATTCCACCGATGTCCGGCTTGAGCGACAG		
uMetIleArgAspAsnLysAspLeuValArgTyrSerThrAspValGlyLeuSerAspSe		760
CGGCCGCCATCAAAAAGGCTTTGCTGTTCGGCGGTGGGAAGGCAACCGTGTCGGCGTGAG		
rGlyArgHisGlnLysGlyPheAlaValArgGlyValGluGlyAsnArgValGlyValSe		
810		
CATAGACGGCGTAAACCTGCCTGATTCCGAAGAAACTCGCTGTACGCCCGTTATGGCAA		
rIleAspGlyValAsnLeuProAspSerGluGluAsnSerLeuTyrAlaArgTyrGlyAs		
860		
CTTCAACAGCTCGCGTCTGTCTATCGACCCCGAACTCGTGGCGCAACATCGACATCGTAA		
nPheAsnSerSerArgLeuSerIleAspProGluLeuValArgAsnIleAspIleValLys		

910  
AGGGCGGACTCTTCAATACCGGCAGCGCGCCTTGCGCGCGGTGTGAATTACCAAAC  
sGlyAlaAspSerPheAsnThrGlySerGlyAlaLeuGlyGlyGlyValAsnTyrGlnTh  
1010  
CCTGCAAGGACGTGACTTACTGTTGCCTGAACGGCAGTTTCGGCGGTGATGATAAAGCGG  
rLeuGlnGlyArgAspLeuLeuLeuProGluArgGlnPheGlyValMetMetLysAsnGln  
1060  
TTACAGCACGCGTAACCGTGAAATGGACAAATACCCCTCGGTTTCGGCGGTGAGCAACGACCG  
yTyrSerThrArgAsnArgGluTrpThrAsnThrLeuGlyPheGlyValSerAsnAspar  
1110  
CGTGGATGCCGCTTTTGCTGTATTTCGCAACGGCGCGCCCATGAAACTGAAAGCGCGGCAA  
gValAspAlaAlaLeuLeuTyrSerGlnArgArgGlyHisGluThrGluSerAlaGlyLy  
1160  
GCGTGGTTATCCGGTAGAGGGTGCTGGTAGCGGAGCGAATATCCGTGGTTCGCGCGCGG  
sArgGlyTyrProValGluGlyAlaGlySerGlyAlaAsnIleArgGlySerAlaArgGln  
1210  
TATTCCTGATCCGTCCTCCCAACACAAATACCCACAGCTTCTTGGGTAAGATTGCTTATCAAAT  
yIleProAspProSerGlnHisLysTyrHisSerPheLeuGlyLysIleAlaTyrGlnIle  
1310  
CAACGACAACACCGCATCGGCGCATCGCTCAACGGTCAGCAGGGGCATAATTACACGGT  
eAsnAspAsnHisArgIleGlyAlaSerLeuAsnGlyGlnGlnGlyHisAsnTyrThrVal

FIG. 2D

TGAAGAGTCTTACAACTGCTTGCTTCTTATTGGCGTGGAAGCTGACGATGTCAACAGACG lGluSerTyraSnlLeuAlaSerTyTrpArgGluAlaAspValAsnArgAr	1360
CGGTAAACACCAACCTCTTTTACGAATGGACGCCGGAATCCGACCGGTTGTCTATGGTAA gArgAsnThrAsnLeuPheTyrgluTrpThrProGluSerAspArgLeuSerMetVally	1410
AGCGGATGTCGATTATCAAAAAACCAAGTATCTGCGGTCAACTACAAAGGTTTCGTTCCC sAlaaspValAspTyrglnLysThrLysValSerAlaValAsnTyrlsGlySerPhePr	1460
GATAGAGGATTCTCCACCTTGACACGTAACATACTCAAAAGGACTTGATGAAATCTA oIleGluaspSerSerThrLeuThrArgAsnTyraSnglnLysaspLeuaspGluIleTy	1510
CAACCGCAGTATGGATACCCGCTTCAAACGCATTACCCCTGCGTTTGGACAGCCATCCGTT rAsnArgSerMetAspThrArgPheLysArgIleThrLeuArgLeuaspSerHisProLe	1560
GCAACTCGGGGGGGCGACACCGCCCTGTCTGTTTAAACTTTCGCCAGCCCGCGTGATTT uGlnLeuGlyGlyArgHisArgLeuSerPheLysThrPheAlaSerArgArgAspPh	1610
TGAAAACCTAAACCGCAGCATTTACTTCAGCGGCCGTGTGTTCGAACCAACAGCAG eGluAsnLeuAsnArgAspTyTrpPheSerGlyArgValArgThrThrSerSe	1660
	1710

FIG. 2E

```

      1760
|
TATCCAGCATCCGGTGAAACCACCAACTACGGTTTCTCACTGTCTGACCAAAATTC AATG
rIleGlnHisProValLysThrThrAsnTy rGlyPheSerLeuSerAspGlnIleGlnTr
1810
|
GAACGACGTGTTCAGTAGCCGCGCAGGTATCCGTTACGATCATACCAAAATGACGCCTCA
pAsnAspValPheSerSerArgAlaGlyIleArgTy rAspHisThrLysMETThrProGI
1860
|
GGAATTGAATGCCGAGTGTCATGCTTGTCGACAAACACCGCCTGCAGCCAACTTATAA
nGluLeuAsnAlaGluCysHisAlaCysAspLysThrProProAlaAlaAsnThrTy rLy
1910
|
AGGCTGGAGCGGTTTGTGCGGCTTGCGGCGCAACTGAATCAGGCTTGCGGTGCGGTTA
sGlyTrpSerGlyPheValGlyLeuAlaAlaGluLeuAsaGluAlaTrpArgValGlyTy
2010
|
CGACATTACTTCGGCTACCGGTGTCCTCCCAATGCGTCCGAAGTGATTTTCACTTACAACCA
rAspIleThrSerGlyTy rArgValProAsnAlaSerGluValTy rPheThrTy rAsnHi
2060
|
CGGTTCCGGGTAATTGGCTGCCCAATCCCAACCTGAAGCCGAGCGCACGACCCACAC
sGlySerGlyAsnTrpLeuProAsnProAsnLeuLysAlaGluArgThrThrHisTh
2110
|
CCTCTCTGCAAGCGCGAGCGA AAAAGGTACTTTGGATGCCAACCTGTATCAAAGCAA
rLeuSerLeuGlnGlyArgSerGluLysGlyThrLeuAspAlaAsnLeuTy rGlnSerAs
2160

```

FIG. 2F

TTACCGCAATTCTGTCTGAAGAGCAGAAGCTGACCACGCGGCGATGTCAGCTGTAC	2210
nTy rArgAsnPheLeuSerGluGluGlnLysLeuThrThrSerGlyAspValSerCysTh	
TCAGATGAATTACTACTACGGTATGTGTAGCAATCCCTTATTCCGAAAACTGGAAATGGCA	2260
rGlnMetAsnTy rTy rTy rGlyMetCysSerAsnProTy rSerGluLysLeuGluTrpGI	
GATGCAAAATATCGACAAGGCCAGAAATCCGCGGTATCGAGCTGACGGGCCGCTGAATGT	2310
nMetGlnAsnIleAspLysAlaArgIleArgGlyIleGluLeuThrGlyArgLeuAsnVa	
GGACAAAGTAGCGTCTTTTGTTCCTGAGGGCTGGAAACTGTTTCGGCTCGCTGGGTTATGC	2360
lAspLysValAlaSerPheValProGluGlyTy rLysLeuPheGlySerLeuGlyTy rAl	
GAAAAGCAAAC TGT C G G G C G A C A C A G C C T G T C C A C C C A G C C G T T G A A A G T G A T T G C	2410
aLysSerLysLeuSerGlyAspAsnSerLeuLeuSerThrGlnProLeuLysValIleAl	
CGGTATCGACTATGAAAGTCCGAGCGCAAAATGGGGCGGTGTCTCTCCCGCCTGACCTATCT	2460
aGlyIleAspTy rGluSerProSerGluLysTy rGlyValPheSerArgLeuThrTy rLe	
GGGCGCGAAAAAGGTCAAAGACGCGCAATACACCGTTTATGAAAAACAAGGCTGGGGTAC	2510
uGlyAlaLysLysValLysAspAlaGlnTy rThrValTy rGluAsnLysGlyTy rGlyTh	
GGGCGCGAAAAAGGTCAAAGACGCGCAATACACCGTTTATGAAAAACAAGGCTGGGGTAC	2560
uGlyAlaLysLysValLysAspAlaGlnTy rThrValTy rGluAsnLysGlyTy rGlyTh	

FIG. 2G

SHEET 8/47

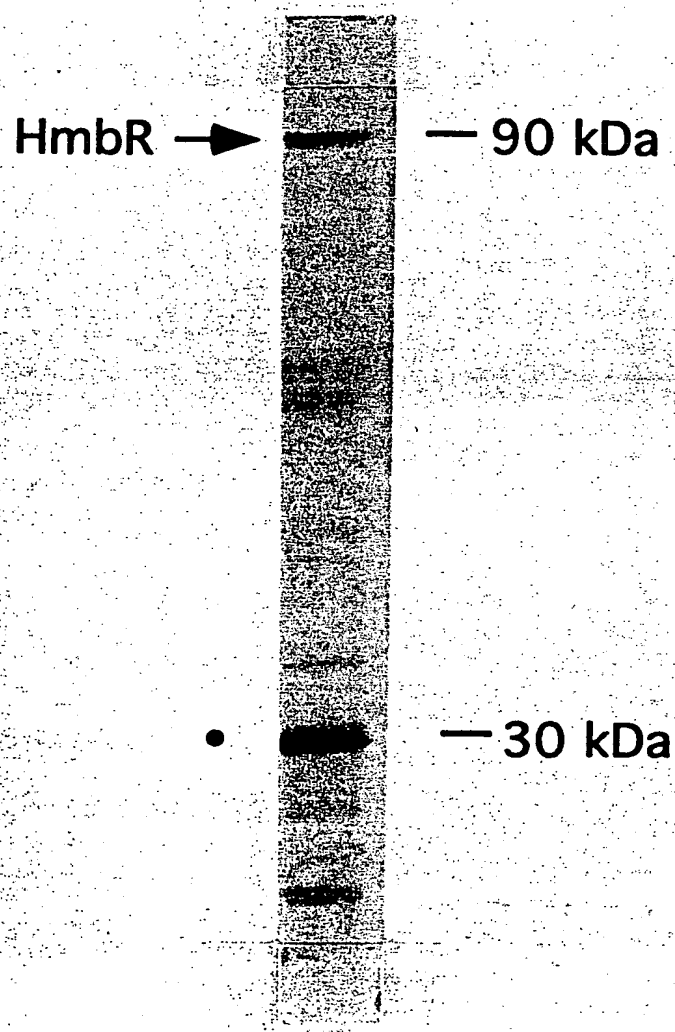
	2610		
GCCTTGCAGAAAAGGTAAAGATTACCCGTGGCTGAACAAGTCGGCTTATGTGTTCTGA			
rProLeuGlnLysLysValLysAspTyrProTrpLeuAsnLysSerAlaTyrValPheAs			
2660			
TATGTACGGCTTCTACAAACCGGTGAAACCTGACTTTGCGTGCAGCGGTATATAATGT			
pMetTyrGlyPheTyrLysProValLysAsnLeuThrLeuArgAlaGlyValTyrAsnVa			
2710			2760
GTTCAACCGCAAATACACCACTTGGGATTCCCTGCGCGCCTGTATAGCTACAGCACAC			
lPheAsnArgLysTyrThrThrTrpAspSerLeuArgGlyLeuTyrSerTyrSerThrTh			2810
CAACTCGGTCGACCGCGATGGCAAAGGCTTAGACCGCTACCGCGCCCCAAGCCGTAATTA			
rAsnSerValAspArgAspGlyLysGlyLeuAspArgTyrArgAlaProSerArgAsnTy			2860
CGCCGTATCGCTGGAATGGAAGTTTAACTCTGGTATTATTGAATTAATCGCCTTGTGAA			
rAlaValSerLeuGluTrpLysPheSTOP			
2910			
AATTAAAGCCGTCCGAATTGTGTTCAGAAGAACTCATTCGGACGGTTTTTACCGAATCTGTG			
2960			
TGTGGGTTTATAGTGGATTAAACAAAATCAGGACAAGGCCGACGAAGCCGCAGACAGTACA			





**Figure 3**

**SHEET 10/47**



006T60\* 05E59960

FIG. 4A

SHEET 11/47

TBP1M	MQQQHLFRLNILCLSLMTALPVYA - - ENVQAEQAQEKQLDTIOVKAKKQ	47
LBPA	MNKKHGFQLTLTALAVAAFP SYAANPETAAPDAAQTQSLKEVTVRAAKV	50
HMBR	MKPLQMLPIAALVGSIFGN - PVFAADEAA TETTPVKA E - - - - VKAVR	43
	* . . . . . * . . . . . * . . . . .	
TBP1M	KTRRDNEVTGLGKLVKSSDTLSKEQVLNIRDLTRYDPGIAVVEQGRGASS	97
LBPA	- GRRSKEATGLGKIAKTSETLNKEQVLGIRDLTRYDPGVAVVEQGN GASG	99
HMBR	KGQRNA - PAAVERV - - NLNRIKQEMIRDNKDLVRYSTDVGLSDSGRHQK -	89
	* . . . . . * . . . . . * . . . . .	
TBP1M	GYSIRGMDKNRVSLTVDGV SQIQSYTAQAALGGTRTAGSSGAIN EIEYEN	147
LBPA	GYSIRGV DKNRVAVSV DGV AQIQ AFTVQGSLSGYGRRGSGAIN EIEYEN	149
HMBR	GFAVRGVEGNRVGVSIDGVNLPDS - - EENSLYARYGNFNSSRLS - IDPEL	136
	* . . . . . * . . . . . * . . . . .	
TBP1M	VKA VEISKGSNSSEYGN GALAGSVA FQTKTAADIIGEGKQWGIQSKTAYS	197
LBPA	I STVEIDKGAGSSDHGSGALGGAVAFRTKEAADLISDGKSWG IQAKTAYG	199
HMBR	VRNIDIVKGADSFNTGSGALGGGVYNQTLQGRDLLPERQFGVMMKNGYS	186
	* . . . . . * . . . . . * . . . . .	
TBP1M	GKDHALTQSLALAGRSGGAEALLIYTKRRGREIHAHKDAGKVQ - SFNRL	246
LBPA	SKNRQFMKSLGAGFSKDGWEGLLIRTERQGRETHPHGDIADGVAYGINRL	249
HMBR	TRNREWTNTLGFGVSNDRVDAALLYSQRRGHETESAG - - - - -	223
	* . . . . . * . . . . . * . . . . .	



FIG. 4C

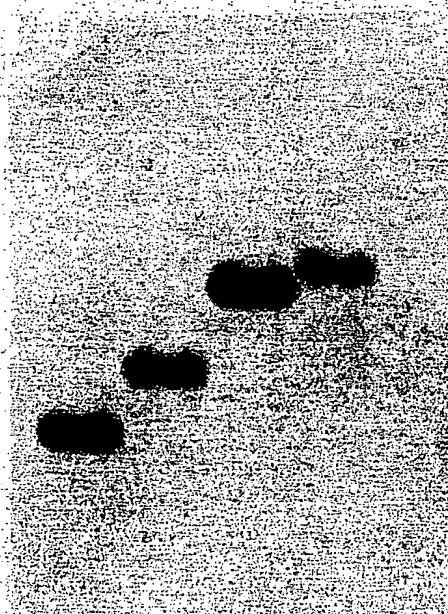
SHEET 13/47

TBP1M	DRTFVTSYLFDAVQPSRYVLGLGYDHPDGIWGINMTFTYSKAKSVDE - - -	813
LBPA	GLSL-RSYALDAVQPSRYVLGFQYDQPEGKWGANIMLTYSKGKNPDE - - -	853
HMBR	DNSLLST - - - - QPLKVIAGIDYESPSEKWGVFSRLTYLGAKKVKDAQY	694
	* * . . . * . . . * . . . * . . .	
TBP1M	- LLGSQALLNGNANAKKAASRRTRPWYVTDVSGYYNIKKHLTLRAGVYNL	862
LBPA	- L - - - AYLADQK - RYSTKRASSSWSTADVSAYLNKKRLTLRAAIYNI	897
HMBR	TVYENKGWGTPLQKKVKDYPWLNKSAYVFDMYGFYKPVKNLTLRAGVYNV	744
	. . . . . * . . . . . * . . . . . * . . . . .	
TBP1M	LNRYVVTWENVVRQ - - TAGGAVNQHKNVGVYNNRYAAPGRNYTFSLEMKF	908
LBPA	GNRYVVTWESLRQ - - TAESTANRHHGSDSNYGRYAAPGRNFSLEMKF	943
HMBR	FNRKYTTWDSLRGLYSYSTNSVDRDGKGLDRYAPSRNYAVSLEWKF	792
	* . . * . . * . . . . . * . . . . . * . . . . .	

**Figure 5**

**SHEET 14/47**

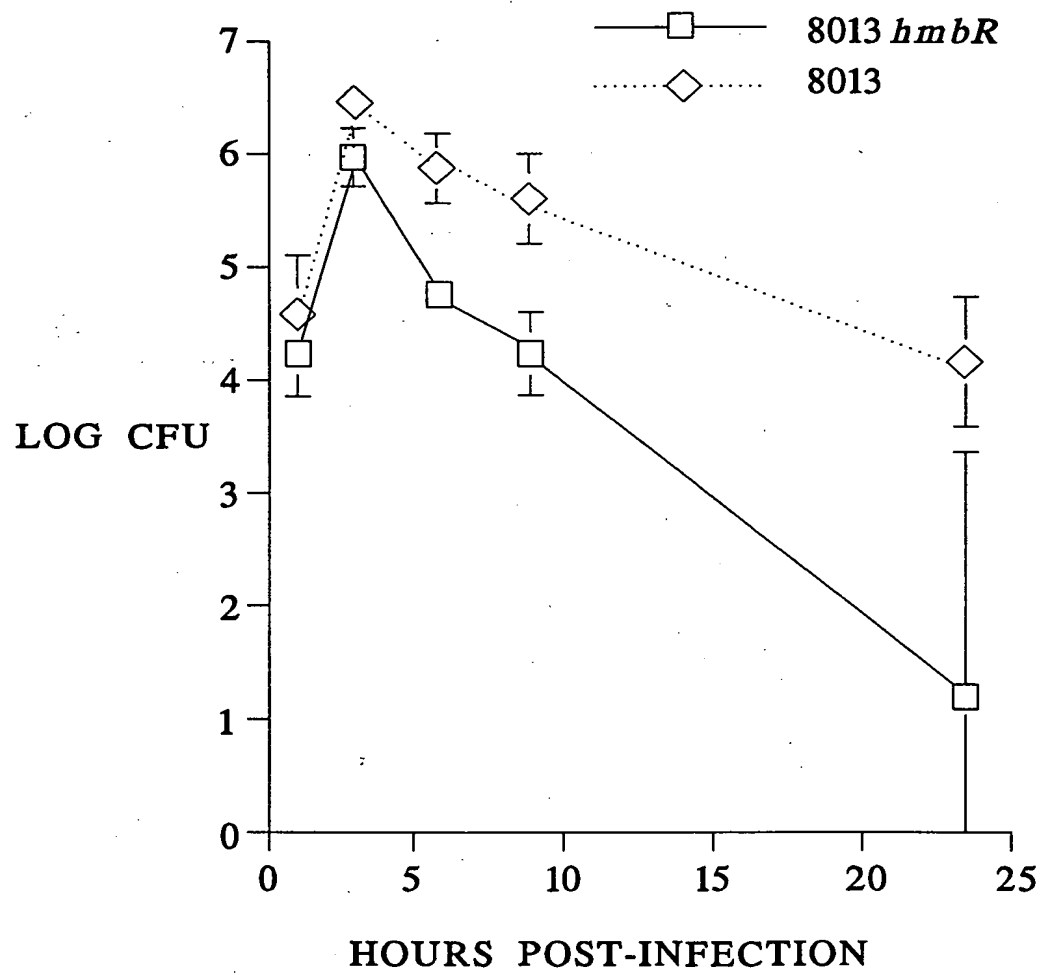
**1 2 3 4**



— 12 kb  
— 6 kb  
— 4 kb  
— 3 kb  
— 2 kb  
— 1 kb

**FIG. 6**

**SHEET 15/47**



## FIG. 7A

SHEET 16/47

ATG AAA CCA TTA CAA ATG CCC CCT ATC GCC GCG CTG CTC GGC AGT ATT	48
Met Lys Pro Leu Gln Met Pro Pro Ile Ala Ala Leu Leu Gly Ser Ile	15
1	5
TTC GGC AAT CCG GTC TTC GCG GCA GAT GAA GCT GCA ACT GAA ACC ACA	96
Phe Gly Asn Pro Val Phe Ala Ala Asp Glu Ala Ala Thr Glu Thr Thr	30
20	25
CCC GTT AAG GCA GAG GTA AAA GCA GTG CGC GTT AAA GGT CAG CGC AAT	144
Pro Val Lys Ala Glu Val Lys Ala Val Arg Val Lys Gly Gln Arg Asn	45
35	40
GCG CCT GCG GCT GTG GAA CGC GTC AAC CTT AAC CGT ATC AAA CAA GAA	192
Ala Pro Ala Ala Val Glu Arg Val Asn Leu Asn Arg Ile Lys Gln Glu	60
50	55
ATG ATA CGC GAC AAT AAA GAC TTG GTG CGC TAT TCC ACC GAT GTC GGC	240
Met Ile Arg Asp Asn Lys Asp Leu Val Arg Tyr Ser Thr Asp Val Gly	80
65	70
TTG AGC GAC AGG AGC CGT CAT CAA AAA GGC TTT GCC ATT CGC GGC GTG	288
Leu Ser Asp Arg Ser Arg His Gln Lys Gly Phe Ala Ile Arg Gly Val	95
85	90



**FIG. 7B****SHEET 17/47**

GAA GGC GAC CGT GTC GGC GTT AGT ATT GAC GGC GTA AAC CTG CCT GAT 336  
 Glu Gly Asp Arg Val Ser Ile Asp Gly Val Asn Leu Pro Asp 110  
 100

TCC GAA GAA AAC TCG CTG TAC GCC CGT TAT GGC AAC TTC AAC AGC TCG 384  
 Ser Glu Glu Asn Ser Leu Tyr Ala Arg Tyr Gly Asn Phe Asn Ser Ser 125  
 115 120

CGT CTG TCT ATC GAC CCC GAA CTC GTG CGC AAC ATC GAC ATC GTA AAA 432  
 Arg Leu Ser Ile Asp Pro Glu Leu Val Arg Asn Ile Asp Ile Val Lys 140  
 130

GGG GCG GAC TCT TTC AAT ACC GGC AGC GGC GCC TTG GGC GGT GTG 480  
 Gly Ala Asp Ser Phe Asn Thr Gly Ser Gly Ala Leu Gly Gly Val 160  
 145 150 155

AAT TAC CAA ACC CTG CAA GGA CGT GAC TTA CTG TTG CCT GAA CGG CAG 528  
 Asn Tyr Gln Thr Leu Gln Gly Arg Asp Leu Leu Leu Pro Glu Arg Gln 175  
 165 170

TTC GGC GTG ATG ATG AAA AAC GGT TAC AGC ACG CGT AAC CGT GAA TGG 576  
 Phe Gly Val Met Met Lys Asn Gly Tyr Ser Thr Arg Asn Arg Glu Trp 190  
 180 185

# FIG. 7C

SHEET 18/47

ACA AAT ACC CTC GGT TTC GGC GTG AGC AAC GAC CGC GTG GAT GCC GCT Thr Asn Thr Leu Gly Phe Gly Val Ser Asn Asp Arg Val Asp Ala Ala 195 200 205 624
TTG CTG TAT TCG CAA CGG CGC GGC CAT GAA ACT GAA AGC GCG GGC AAG Leu Leu Tyr Ser Gln Arg Arg Gly His Glu Thr Glu Ser Ala Gly Lys 210 215 220 672
CGT GGT TAT CCG GTA GAG GGT GCT GGT AGC GGA GCG AAT ATC CGT GGT Arg Gly Tyr Pro Val Glu Gly Ala Gly Ser Gly Ala Asn Ile Arg Gly 225 230 235 720
TCT GCG CGC GGT ATT CCT GAT CCG TCC CAA CAC AAA TAC CAC AGC TTC Ser Ala Arg Gly Ile Pro Asp Pro Ser Ser Gln His Lys Tyr His Ser Phe 245 250 255 768
TTG GGT AAG ATT GCT TAT CAA ATC AAC GAC AAC CAC CGC ATC GGC GCA Leu Gly Lys Ile Ala Tyr Gln Ile Asn Asp Asn His Arg Ile Gly Ala 260 265 270 816
TCG CTC AAC GGT CAG CAG GGG CAT AAT TAC ACG GTT GAA GAG TCT TAC Ser Leu Asn Gly Gln Gln Gly His Asn Tyr Thr Val Glu Glu Ser Tyr 275 280 285 864

SHEET 19/47

FIG. 7D

AAC CTG CTT GCT TCT TAT TGG CGT GAA GCT GAC GAT GTC AAC AGA CCG 912  
 Asn Leu Leu Ala Ser Tyr Trp Arg Glu Ala Asp Asp Val Asn Arg Arg  
 290 295 300

CGT AAC ACC AAC CTC TTT TAC GAA TGG ACG CCG GAA TCC GAC CCG TTG 960  
 Arg Asn Thr Asn Leu Phe Tyr Glu Trp Thr Pro Glu Ser Asp Arg Leu  
 305 310 315 320

TCT ATG GTA AAA GCG GAT GTC GAT TAT CAA AAA ACC AAA GTA TCT GCG 1008  
 Ser Met Val Lys Ala Asp Val Asp Tyr Gln Lys Thr Lys Val Ser Ala  
 325 330 335

GTC AAC TAC AAA GGT TCG TTC CCG ACG AAT TAC ACC ACA TGG GAA ACC 1056  
 Val Asn Tyr Lys Gly Ser Phe Pro Thr Asn Tyr Thr Thr Trp Glu Thr  
 340 345 350

GAG TAC CAT AAA AAG GAA GTT GGC GAA ATC TAT AAC CGC AGC ATG GAT 1104  
 Glu Tyr His Lys Lys Glu Val Gly Glu Ile Tyr Asn Arg Ser Met Asp  
 355 360 365

ACA ACC TTC AAA CGT ATT ACG CTG CGT ATG GAC AGC CAT CCG TTG CAA 1152  
 Thr Thr Phe Lys Arg Ile Thr Leu Arg Met Asp Ser His Pro Leu Gln  
 370 375 380

SHEET 20/47

FIG. 7E

CTC GGG GGG GGA CAC CGC CTG TCG TTC AAA ACC TTT GCC GGG CAG	1200
Leu Gly Gly Gly Arg His Arg Leu Ser Phe Thr Phe Ala Gly Gln	400
<b>385</b>	<b>395</b>
CGT GAT TTT GAA AAC TTA AAC CGC GAC GAT TAC TAC TTC AGC GGC CGT	1248
Arg Asp Phe Glu Asn Leu Asn Arg Asp Tyr Tyr Phe Ser Gly Arg	415
<b>405</b>	<b>415</b>
GTT GTT CGA ACC ACC AAC AGT ATC CAG CAT CCG GTG AAA ACC ACC AAC	1296
Val Val Arg Thr Thr Asn Ser Ile Gln His Pro Val Lys Thr Thr Asn	430
<b>420</b>	<b>430</b>
TAC GGT TTC TCG CTG TCC GAC CAA ATC CAA TGG AAC GAC GTG TTC AGT	1344
Tyr Gly Phe Ser Leu Ser Asp Gln Ile Gln Trp Asn Asp Val Phe Ser	445
<b>435</b>	<b>445</b>
AGC CGC GCA GGT ATC CGT TAC GAC CAC ACC AAA ATG ACG CCT CAG GAA	1392
Ser Arg Ala Gly Ile Arg Tyr Asp His Thr Lys Met Thr Pro Gln Glu	460
<b>450</b>	<b>460</b>
TTG AAT GCC GAC TGT CAT GCT TGT GAC AAA ACA CCG CCT GCA GCC AAC	1440
Leu Asn Ala Asp Cys His Ala Cys Asp Lys Thr Pro Pro Ala Ala Asn	480
<b>465</b>	<b>475</b>
	<b>480</b>

SHEET 21/47

FIG. 7F

ACT TAT AAA GGC TGG AGC TTT GTC GGC TTG GCG GCG CAG CTG AGC	1488
Thr Tyr Lys Gly Trp Ser Gly Phe Val Gly Leu Ala Ala Gln Leu Ser	495
485	
CAA ACA TGG CGT TTG GGT TAC GAT GTG ACC TCA GGT TTC CGC GTG CCG	1536
Gln Thr Trp Arg Leu Gly Tyr Asp Val Thr Ser Gly Phe Arg Val Pro	510
500	
AAT GCG TCT GAA GTG TAT TTC ACT TAC AAC CAC GGT TCG GGC ACT TGG	1584
Asn Ala Ser Glu Val Tyr Phe Thr Tyr Asn His Gly Ser Gly Thr Trp	520
515	
AAG CCT AAT CCT AAT TTG AAG GCA GAA CGC AGC ACC ACC CAC ACC CTG	1632
Lys Pro Asn Pro Asn Leu Lys Ala Glu Arg Ser Thr Thr His Thr Leu	540
530	
535	
TCC TTG CAG GGG CGC GGC GAC AAA GGG ACA CTG GAT GCC AAC CTG TAT	1680
Ser Leu Gln Gly Arg Gly Asp Lys Gly Thr Leu Asp Ala Asn Leu Tyr	550
545	
550	
555	
CAA AGC AAT TAC CGA AAC TTC CTG TCG GAA GAG CAG AAT CTG ACT GTC	1728
Gln Ser Asn Tyr Arg Asn Phe Leu Ser Glu Glu Gln Asn Leu Thr Val	570
565	
575	

SHEET 22/47

# FIG. 7G

AGC GGC ACA CCC GGC TGT ACT GAG GAT GCT TAC TAC TAT AGA TGC	1776
Ser Gly Thr Pro Gly Cys Thr Glu Glu Asp Ala Tyr Tyr Arg Cys	580
	585
AGC GAC CCC TAC AAA GAA GAG TGG CAG ATG AAA AAT ATC GAC	1824
Ser Asp Pro Tyr Lys Glu Lys Leu Asp Trp Gln Met Lys Asn Ile Asp	595
	600
	605
AAG GCC AGA ATC CGC GGT ATC GAG TTG ACA GGC CGT CTG AAT GTG GAC	1872
Lys Ala Arg Ile Arg Gly Ile Glu Leu Thr Gly Arg Leu Asn Val Asp	610
	615
	620
AAA GTA GCG TCT TTT GTT CCT GAG GGT TGG AAA CTG TTC GGC TCG CTG	1920
Lys Val Ala Ser Phe Val Pro Glu Gly Trp Lys Leu Phe Gly Ser Leu	625
	630
	635
GGT TAT GCG AAA AGC AAA CTG TCG GGC GAC AAC AGC CTG CTG TCC ACA	1968
Gly Tyr Ala Lys Ser Lys Leu Ser Gly Asp Asn Ser Ser Leu Ser Thr	645
	650
	655
CAG CCG CTG AAA GTG ATT GCC GGT ATC GAC TAT GAA AGT CCG AGC GAA	2016
Gln Pro Leu Lys Val Ile Ala Gly Ile Asp Tyr Glu Ser Pro Ser Glu	660
	665
	670

## FIG. 7H

SHEET 23/47

AAA TGG GGC GTA TTC TCC CGC CTG ACC TAT CTA GGC GCG AAA AAG GTC	2064
Lys Trp Gly Val Phe Ser Arg Leu Tyr Thr Lys Val	
675	685
AAA GAC GCG CAA TAC ACC GGT TAT GAA AAC AAG GGC TGG GGT ACG CCT	2112
Lys Asp Ala Gln Tyr Thr Val Tyr Glu Asn Lys Gly Trp Gly Thr Pro	
690	700
TTG CAG AAA AAG GTA AAA GAT TAC CCG TGG CTG AAC AAG TCG GCT TAT	2160
Leu Gln Lys Lys Val Lys Asp Tyr Trp Leu Asn Lys Ser Ala Tyr	
705	715
GTG TTT GAT ATG TAC GGC TTC TAC AAA CCG GCT AAA AAC CTG ACT TTG	2208
Val Phe Asp Met Tyr Gly Phe Tyr Lys Pro Ala Lys Asn Leu Thr Leu	
725	735
CGT GCA GGC GTG TAC AAC CTG TTC AAC CGC AAA TAC ACC ACT TGG GAT	2256
Arg Ala Gly Val Tyr Asn Asn Arg Phe Leu Thr Tyr Thr Trp Asp	
740	750
TCC CTG CGC GGT TTA TAT AGC TAC AGC ACC ACC AAT GCG GTC GAC CGC	2204
Ser Leu Arg Gly Leu Tyr Ser Tyr Ser Thr Thr Asn Ala val Asp Arg	
755	765
	760

SHEET 24/47

FIG. 71

GAT GGC AAA GGC TTA GAC CGC TAC CGC GCC CCA GGC CGC AAT TAC GCC  
Asp Gly Lys Gly Leu Asp Arg Tyr Arg Ala Pro Gly Arg Asn Tyr Ala  
770 775 780

GTA TCG CTG GAA TGG AAG TTT TAA  
Val Ser Leu Glu Trp Lys Phe \*  
785 790 2375



## FIG. 8A

ATG AAA CCA TTA CAA ATG CTC CCT ATC GCC GCG CTG GTC GGC AGT ATT	48
Met Lys Pro Leu Gln Met Leu Pro Ile Ala Ala Leu Val Gly Ser Ile	15
1	10
5	
TTC GGC AAT CCG GTC TTT GCG GCA GAT GAA GCT GCA ACT GAA ACC ACA	96
Phe Gly Asn Pro Val Phe Ala Ala Asp Glu Ala Ala Thr Glu Thr Thr	30
20	25
35	40
CCC GTT AAG GCA GAG GTA AAA GCA GTG CGC GTT AAA GGC CAG CGC AAT	144
Pro Val Lys Ala Glu Val Lys Ala Val Arg Val Lys Gly Gln Arg Asn	45
50	55
65	60
GCG CCT GCG GCT GTG GAA CGC GTC AAC CTT AAC CGT ATC AAA CAA GAA	192
Ala Pro Ala Ala Val Glu Arg Val Asn Leu Asn Arg Ile Lys Gln Glu	
70	75
85	80
ATG ATA CGC GAC AAC AAA GAC TTG GTG CGC TAT TCC ACC GAT GTC GGC	240
Met Ile Arg Asp Asn Lys Asp Leu Val Arg Tyr Ser Thr Asp Val Gly	
90	95
105	110
120	125
135	140
150	155
165	170
180	185
195	200
210	215
225	230
240	245
255	260
270	275
285	290
295	300
305	310
315	320
325	330
335	340
345	350
355	360
365	370
375	380
385	390
395	400
405	410
415	420
425	430
435	440
445	450
455	460
465	470
475	480
485	490
495	500
505	510
515	520
525	530
535	540
545	550
555	560
565	570
575	580
585	590
595	600
605	610
615	620
625	630
635	640
645	650
655	660
665	670
675	680
685	690
695	700
705	710
715	720
725	730
735	740
745	750
755	760
765	770
775	780
785	790
795	800
805	810
815	820
825	830
835	840
845	850
855	860
865	870
875	880
885	890
895	900
905	910
915	920
925	930
935	940
945	950
955	960
965	970
975	980
985	990
995	1000

**FIG. 8B**

GAA GGC AAC CGT GTC GGC GTG AGC ATA GAC GGC GTA AAC CTG CCT GAT Glu Gly Asn Arg Val Gly Val Ser Ile Asp Gly Val Asn Leu Pro Asp 100 105 110 336
TCC GAA GAA AAC TCG CTG TAC GCC CGT TAT GGC AAC TTC AAC AGC TCG Ser Glu Glu Asn Ser Leu Tyr Ala Arg Tyr Gly Asn Phe Asn Ser Ser 115 120 125 384
CGT CTG TCT ATC GAC GAC CCC GAA CTC GTG CGC AAC ATC GAC ATC GTA AAA Arg Leu Ser Ile Asp Pro Glu Leu Val Arg Asn Ile Asp Ile Val Lys 130 135 140 432
GGG GCG GAC TCT TTC AAT ACC GGC AGC GGC GCC TTG GGC GGC GGT GTG Gly Ala Asp Ser Phe Asn Thr Gly Ser Gly Ala Leu Gly Gly Val 145 150 155 160 480
AAT TAC CAA ACC CTG CAA GGA CGT GAC TTA CTG TTG CCT GAA CGG CAG Asn Tyr Gln Thr Leu Gln Gly Arg Asp Leu Leu Pro Glu Arg Gln 165 170 175 528
TTC GGC GTG ATG ATG AAA AAC GGT TAC AGC ACG CGT AAC CGT GAA TGG Phe Gly Val Met Met Lys Asn Gly Tyr Ser Thr Arg Asn Arg Glu Trp 180 185 190 576

SHEET 27/47

**FIG. 8C**

ACA AAT ACC CTC GGT TTC GGC GTG AGC AAC GAC CGC GTG GAT GCC GCT Thr Asn Thr Leu Gly Phe Gly Val Ser Asn Asp Arg Val Asp Ala Ala	195	200	205	624
TTG CTG TAT TCG CAA CGG CGC GGC CAT GAA ACT GAA AGC GCG GGC AAG Leu Leu Tyr Ser Gln Arg Arg Gly His Glu Thr Glu Ser Ala Gly Lys	210	215	220	672
CGT GGT TAT CCG GTA GAG GGT GCT GGT AGC GGA GCG AAT ATC CGT GGT Arg Gly Tyr Pro Val Glu Gly Ala Gly Ser Gly Ala Asn Ile Arg Gly	225	230	235	720
TCT GCG CGC GGT ATT CCT GAT CCG TCC CAA CAC AAA TAC CAC AGC TTC Ser Ala Arg Gly Ile Pro Asp Pro Ser Gln His Lys Tyr His Ser Phe	245	250	255	768
TTG GGT AAG ATT GCT TAT CAA ATC AAC GAC AAC CAC CGC ATC GGC GCA Leu Gly Lys Ile Ala Tyr Gln Ile Asn Asp Asn His Arg Ile Gly Ala	260	265	270	816
TCG CTC AAC GGT CAG CAG GGG CAT AAT TAC ACG GTT GAA GAG TCT TAC Ser Leu Asn Gly Gln Gln Gly His Asn Tyr Thr Val Glu Glu Ser Tyr	275	280	285	864

SHEET 28/47

**FIG. 8D**

AAC CTG CTT GCT TCT TAT TGG CGT GAA GCT GAC GAT GTC AAC AGA CGG	911
Asn Leu Leu Ala Ser Tyr Trp Arg Glu Ala Asp Asp Val Asn Arg Arg	
<b>290</b>	<b>300</b>
CGT AAC ACC AAC CTC TTT TAC TGG GAA TGG ACG CCG GAA TCC GAC CGG TTG	960
Arg Asn Thr Asn Leu Phe Tyr Glu Trp Thr Pro Glu Ser Asp Arg Leu	
<b>305</b>	<b>310</b>
TCT ATG GTA AAA GCG GAT GTC GAT TAT CAA AAA ACC AAA GTA TCT GCG	1008
Ser Met Val Lys Ala Asp Val Asp Tyr Gln Lys Thr Lys Val Ser Ala	
<b>325</b>	<b>330</b>
GTC AAC TAC AAA GGT TCG TTC CCG ATA GAG GAT TCT TCC ACC TTG ACA	1056
Val Asn Tyr Lys Gly Ser Phe Pro Ile Glu Asp Ser Thr Leu Thr	
<b>340</b>	<b>345</b>
CGT AAC TAC AAT CAA AAG GAC TTG GAT GAA ATC TAC AAC CGC AGT ATG	1104
Arg Asn Tyr Asn Gln Lys Asp Leu Asp Glu Ile Tyr Asn Arg Ser Met	
<b>355</b>	<b>360</b>
GAT ACC CGC TTC AAA CGC ATT ACC CTG CGT TTG GAC AGC CAT CCG TTG	1152
Asp Thr Arg Phe Lys Arg Ile Thr Leu Arg Leu Asp Ser His Pro Leu	
<b>370</b>	<b>375</b>
	<b>380</b>

SHEET 29/47

## FIG. 8E

CAA CTC GGG GGG GGG CGA CAC CGC CTG TCG TTT AAA ACT TTC GCC AGC	1200
Gln Leu Gly Gly Gly Arg His Arg Leu Ser Phe Lys Thr Phe Ala Ser	400
<b>385</b>	<b>395</b>
CGC CGT GAT TTT GAA AAC CTA AAC CGC GAC GAT TAT TAC TTC AGC GGC	1248
Arg Arg Asp Phe Glu Asn Leu Asn Arg Asp Tyr Tyr Phe Ser Gly	415
<b>405</b>	<b>410</b>
CGT GTT GTT CGA ACC ACC AGC AGT ATC CAG CAT CCG GTG AAA ACC ACC	1296
Arg Val Val Arg Thr Thr Ser Ser Ile Gln His Pro Val Lys Thr Thr	430
<b>420</b>	<b>425</b>
AAC TAC GGT TTC TCA CTG TCT GAC CAA ATT CAA TGG AAC GAC GTG TTC	1344
Asn Tyr Gly Phe Ser Leu Ser Asp Gln Ile Gln Trp Asn Asp Val Phe	445
<b>435</b>	<b>440</b>
AGT AGC CGC GCA GGT ATC CGT TAC GAT CAT ACC AAA ATG ACG CCT CAG	1392
Ser Ser Arg Ala Gly Ile Arg Tyr Asp His Thr Lys Met Thr Pro Gln	460
<b>450</b>	<b>455</b>
GAA TTG AAT GCC GAG TGT CAT GCT TGT GAC AAA ACA CCG CCT GCA GCC	1440
Glu Leu Asn Ala Glu Cys His Ala Cys Asp Lys Thr Pro Pro Ala Ala	480
<b>465</b>	<b>470</b>
	<b>475</b>
	<b>480</b>

SHEET 30/47

## FIG. 8F

AAC ACT TAT AAA GGC TGG AGC GGT TTT GTC GGC TTG GCG CAA CTG	1488
Asn Thr Tyr Lys Gly 485	
Val Gly Leu Ala Ala Gln Leu 495	
490	
AAT CAG GCT TGG CGT GTC GGT TAC GAC ATT ACT TCC GGC TAC CGT GTC	1536
Asn Gln Ala Trp Arg 500	
Tyr Asp Ile Thr Ser Gly Tyr Arg Val 510	
505	
CCC AAT GCG TCC GAA GTG TAT TTC ACT TAC AAC CAC GGT TCG GGT AAT	1584
Pro Asn Ala Ser Glu Val Tyr Phe Thr Tyr Asn His Gly Ser Gly Asn 525	
520	
TGG CTG CCC AAT CCC AAC CTG AAA GCC GAG CGC ACG ACC ACC CAC ACC	1632
Trp Leu Pro Asn Pro Asn Leu Lys Ala Glu Arg Thr Thr Thr His Thr 540	
535	
CTC TCT CTG CAA GGC CGC AGC GAA AAA GGT ACT TTG GAT GCC AAC CTG	1680
Leu Ser Leu Gln Gly 550	
Arg Ser Glu Lys Gly Thr Leu Asp Ala Asn Leu 560	
545	
TAT CAA AGC AAT TAC CGC AAT TTC CTG TCT GAA GAG CAG AAG CTG ACC	1728
Tyr Gln Ser Asn Tyr Arg Asn Phe Leu Ser Glu Glu Gln Lys Leu Thr 575	
570	
565	

## FIG. 8G

SHEET 31/47

ACC AGC GGC GAT GTC AGC TGT ACT CAG ATG AAT TAC TAC GGT ATG Thr Ser Gly Asp Val Ser Cys Thr Gln Met Asn Tyr Tyr Gly Met 580 585 590 1776
TGT AGC AAT CCT TAT TCC GAA AAA CTG GAA TGG CAG ATG CAA AAT ATC Cys Ser Asn Pro Tyr Ser Glu Lys Leu Glu Trp Gln Met Gln Asn Ile 595 600 605 1824
GAC AAG GCC AGA ATC CGC GGT ATC GAG CTG ACG GGC CGT CTG AAT GTG Asp Lys Ala Arg Ile Arg Gly Ile Glu Leu Thr Gly Arg Leu Asn Val 610 615 620 1872
GAC AAA GTA GCG TCT TTT GTT CCT GAG GGC TGG AAA CTG TTC GGC TCG Asp Lys Val Ala Ser Phe Val Pro Glu Gly Trp Lys Leu Phe Gly Ser 625 630 635 640 1920
CTG GGT TAT GCG AAA AGC AAA CTG TCG GGC GAC AAC AGC CTG CTG TCC Leu Gly Tyr Ala Lys Ser Ser Lys Leu Ser Gly Asp Asn Ser Leu Leu Ser 645 650 655 1968
ACC CAG CCG TTG AAA GTG ATT GCC GGT ATC GAC TAT GAA AGT CCG AGC Thr Gln Pro Leu Lys Val Ile Ala Gly Ile Asp Tyr Glu Ser Pro Ser 660 665 670 2016

SHEET 32/47

## FIG. 8H

GAA AAA TGG GGC GTG TTC TCC CGC CTG ACC TAT CTG GGC GCG AAA AAG Glu Lys Trp Gly Val Phe Ser Arg Leu Thr Tyr Leu Gly Ala Lys Lys	2064		
675	680	685	
GTC AAA GAC GCG CAA TAC ACC ACC GTT TAT GAA AAC AAG GGC TGG GGT ACG Val Lys Asp Ala Gln Tyr Thr Tyr Val Tyr Glu Asn Lys Gly Trp Gly Thr	2112		
690	695	700	
CCT TTG CAG AAA AAG GTA AAA GAT TAC CCG TGG CTG AAC AAG TCG GCT Pro Leu Gln Lys Lys Val Lys Asp Tyr Pro Trp Leu Asn Lys Ser Ala	2160		
705	710	715	720
TAT GTG TTC GAT ATG TAC GGC TTC TAC AAA CCG GTG AAA AAC CTG ACT Tyr Val Phe Asp Met Tyr Gly Phe Tyr Lys Pro Val Lys Asn Leu Thr	2208		
725	730	735	
TTG CGT GCA GGC GTA TAT AAT GTG TTC AAC CGC AAA TAC ACC ACT TGG Leu Arg Ala Gly Val Tyr Asn Val Phe Asn Arg Lys Tyr Thr Thr Trp	2256		
740	745	750	
GAT TCC CTG GCG GGC CTG TAT AGC TAC AGC ACC ACC AAC TCG GTC GAC Asp Ser Leu Arg Gly Leu Tyr Ser Tyr Ser Thr Thr Asn Ser Val Asp	2304		
755	760	765	





SHEET 34/47

## FIG. 9A

ATG AAA CCA TTA CAC ATG CTT CCT ATT GCC GCG CTG GTC GGC AGT ATT	48
Met Lys Pro Leu His Met Leu Pro Ile Ala Ala Leu Val Gly Ser Ile	
1 5 10 15	
TTC GGC AAT CCG GTC TTG GCA GCG GAT GAA GCT GCA ACC GAA ACC ACA	96
Phe Gly Asn Pro Val Leu Ala Ala Asp Glu Ala Ala Thr Glu Thr Thr	
20 25 30	
CCC GTT AAA GCA GAG ATA AAA GAA GTG CGC GTT AAA GAC CAG CTT AAT	144
Pro Val Lys Ala Glu Ile Lys Glu Val Arg Val Lys Asp Gln Leu Asn	
35 40 45	
GCG CCT GCA ACC GTG GAA CGT GTC AAC CTC GGC CGC ATT CAA CAG GAA	192
Ala Pro Ala Thr Val Glu Arg Val Asn Leu Gly Arg Ile Gln Gln Glu	
50 55 60	
ATG ATA CGC GAC AAC AAA GAC TTG GTG CGT TAC TCC ACC GAC GTC GGC	240
Met Ile Arg Asp Asn Lys Asp Leu Val Arg Tyr Ser Thr Asp Val Gly	
65 70 75 80	
TTG AGC GAT AGC GGC CGC CAT CAA AAA GGC TTT GCT GTG CGC GGC GTG	288
Leu Ser Asp Ser Gly Arg Arg His Gln Lys Gly Phe Ala Val Arg Gly Val	
85 90 95	

## FIG. 9B

SHEET 35/47

GAA GGC AAC CGT GTC GGT GTC AGC ATT GAC GGC GTG AGC CTG CCT GAT Glu Gly Asn Arg Val Gly Val Ser Ile Asp Gly Val Ser Leu Pro Asp 100 105 110 336
TCG GAA GAA AAC TCA CTG TAT GCA CGT TAT GGC AAC TTC AAC AGC TCG Ser Glu Glu Asn Ser Ser Tyr Ala Arg Tyr Gly Asn Phe Asn Ser Ser 115 120 125 384
CGC CTG TCT ATC GkC CCC GAA CTC GTG CGC AAC ATC GAA ATC GCG AAG Arg Leu Ser Ile Asp Pro Glu Leu Val Arg Asn Ile Glu Ile Ala Lys 130 135 140 432
GGC GCT GAC TCT TTC AAT ACC GGT AGC GGC GCA TTG GGT GGC GGC GTG Gly Ala Asp Ser Phe Asn Thr Gly Ser Gly Ala Leu Gly Gly Val 145 150 155 160 480
AAT TAC CAA ACC CTG CAA GGA CAT GAT TTG CTG TTG GAC AGG CAA Asn Tyr Gln Thr Leu Gln Gly His Asp Leu Leu Asp Arg Arg Gln 165 170 175 528
TTC GGC GTG ATG ATG AAA AAC GGT TAC AGC AGC CGC AAC CGC GAA TGG Phe Gly Val Met Met Lys Asn Gly Tyr Ser Ser Arg Asn Arg Glu Trp 180 185 190 576

SHEET 36/47

FIG. 9C

ACA AAT ACA CTC GGT TTC GGT GTG AGC AAC GAC CGC GTG GAT GCC GCT Thr Asn Thr Leu Gly Phe Gly Val Ser Asn Asp Arg Val Asp Ala Ala	195	200	205	624
TTG CTG TAT TCG CAA CGT CGC GGT CAT GAG ACC GAA AGC GCG GGC GAG Leu Leu Tyr Ser Gln Arg Arg Gly His Glu Thr Glu Ser Ala Gly Glu	210	215	220	672
CGT GGC TAT CCG GTA GAG GGT GCT GGC AGC GGA GCA ATT ATC CGT GGT Arg Gly Tyr Pro Val Glu Gly Ala Gly Ser Gly Ala Ile Ile Arg Gly	225	230	235	720
TCG TCA CGC GGT ATC CCT GAT CCG TCC AAA CAC AAA TAC CAC AAC TTC Ser Ser Arg Gly Ile Pro Asp Pro Ser Lys His Lys Tyr His Asn Phe	245	250	255	768
TTG GGT AAG ATT GCT TAT CAA ATC AAC GAC AAG CAC CGC ATC GGC CCA Leu Gly Lys Ile Ala Tyr Gln Ile Asn Asp Lys His Arg Ile Gly Pro	260	265	270	816
TCG TTT AAC GGC CAG CAG GGG CAT AAT TAC ACG ATT GAA GAG TCT TAT Ser Phe Asn Gly Gln Gln Gly His Asn Tyr Thr Ile Glu Glu Ser Tyr	275	280	285	864

SHEET 37/47

## FIG. 9D

AAC CTG ACC GCT TCT TCC TGG CGC GAA GCC GAT GAC GTA AAC AGA CGG	912
Asn Leu Thr Ala Ser Trp Arg Glu Ala Asp Asp Val Asn Arg Arg	
290	300
CGC AAT GCC AAC CTC TTT TAC TGG GAA TGG ACG CCT GAT TCA AAT TGG CTG	960
Arg Asn Ala Asn Leu Phe Tyr Glu Trp Thr Pro Asp Ser Asn Trp Leu	
305	310
TCG TCT TTG AAG GCG GAC TTC GAT TAT CAG ACA ACC AAA GTG GCG GCG	1008
Ser Ser Leu Lys Ala Asp Phe Tyr Gln Thr Thr Lys Val Ala Ala	
325	330
GTT AAC AAC AAA GGC TCG TTC CCG ACG GAT TAT TCC ACC TGG ACG CGC	1056
Val Asn Asn Lys Gly Ser Phe Pro Thr Asp Tyr Ser Thr Trp Thr Arg	
340	345
AAC TAT AAT CAG AAG GAT TTG GAG AAT ATA TAC AAC CGC AGC ATG GAC	1104
Asn Tyr Asn Gln Lys Asp Leu Glu Asn Ile Tyr Asn Arg Ser Met Asp	
355	360
ACC CGA TTC AAA CGT TTT ACT TTG CGT ATG GAC AGC CAA CCG TTG CAA	1152
Thr Arg Phe Lys Arg Phe Thr Leu Arg Met Asp Ser Gln Pro Leu Gln	
370	375
	380

SHEET 38/47

FIG. 9E

CTG GGC GGC CAA CAT CGC TTG TCG CTT AAA ACT TTC GCC AGT CGG CGT	1200
Leu Gly Gly Gln His Arg Leu Ser Leu Lys Thr Phe Ala Ser Arg	400
<b>385</b>	<b>395</b>
GAG TTT GAA AAC TTA AAC CGC GAC GAT TAT TAC TTC AGC GAA AGA GTA	1248
Glu Phe Glu Asn Leu Asn Arg Asp Tyr Tyr Phe Ser Glu Arg Val	415
<b>405</b>	<b>410</b>
TCC CGT ACT ACC AGC TCG ATT CAA CAC CCC GTG AAA ACC ACT AAT TAT	1296
Ser Arg Thr Thr Ser Ser Ile Gln His Pro Val Lys Thr Thr Asn Tyr	430
<b>420</b>	<b>425</b>
GGT TTC TCA CTG TCT GAT CAA ATC CAA TGG AAC GAC GTG TTC AGC AGC	1344
Gly Phe Ser Leu Ser Asp Gln Ile Gln Trp Asn Asp Val Phe Ser Ser	445
<b>435</b>	<b>440</b>
CGT GCA GAT ATC CGT TAC GAT CAT ACC AAA ATG ACG CCT CAG GAA TTG	1392
Arg Ala Asp Ile Arg Tyr Asp His Thr Lys Met Thr Pro Gln Glu Leu	460
<b>450</b>	<b>455</b>
AAT GCC GAG TGT CAT GCT TGT GAC AAA ACA CCG CCT GCA GCC AAT ACT	1440
Asn Ala Glu Cys His Ala Cys Asp Lys Thr Pro Pro Ala Ala Asn Thr	480
<b>465</b>	<b>470</b>
	<b>475</b>

SHEET 39/47

**FIG. 9F**

TAT AAA GGC TGG AGC GGA TTT GTC GGT TTG GCG GCG CAA CTG AAT CAG	1488
Tyr Lys Gly Trp Ser	485
Leu Val Gly	490
Leu Ala Gln Leu Asn Gln	495
GCT TGG CAT GTC GGT TAC GAC ATT ACT TCC GGC TAC CGT GTC CCC AAT	1536
Ala Trp His Val Gly Tyr Asp Ile Thr Ser Gly Tyr Arg Val Pro Asn	500
	505
GCG TCC GAA GTG TAT TTC ACT TAC AAC CAC GGT TCG GGT AAT TGG CTG	1584
Ala Ser Glu Val Tyr Phe Thr Tyr Asn His Gly Ser Gly Asn Trp Leu	515
	520
	525
CCC AAT CCC AAC CTG AAA GCC GAG CGC AGC ACC ACC CAC ACC CTG TCT	1632
Pro Asn Pro Asn Leu Lys Ala Glu Arg Ser Thr Thr His Thr Leu Ser	530
	535
CTG CAA GGC CGC AGC GAA AAA GGT ACT TTG GAT GCC AAC CTG TAT CAA	1680
Leu Gln Gly Arg Ser	545
	550
	555
	560
AAC AAT TAC CGC AAC TTC TTG TCT GAA GAG CAG AAG CTG ACC ACC AGC	1728
Asn Asn Tyr Arg Asn Phe Leu Ser Glu Glu Gln Lys Leu Thr Thr Ser	565
	570
	575

## FIG. 9G

SHEET 40/47

GGC GAT GTC GGC TGT ACT CAG ATG AAT TAC TAC TAC GGT ATG TGT AGC Gly Asp Val Gly Cys Thr Gln Met Asn Tyr Tyr Tyr Gly Met Cys Ser	580 585 590	1776
AAT CCT TAT TCC GAA AAA CCG GAA TGG CAG ATG CAA AAT ATC GAT AAG Asn Pro Tyr Ser Glu Lys Pro Glu Trp Gln Met Gln Asn Ile Asp Lys	595 600 605	1824
GCC CGA ATC CGT GGT CTT GAG CTG ACA GGC CGT CTG AAT GTG ACA AAA Ala Arg Ile Arg Gly Leu Glu Leu Thr Gly Arg Leu Asn Val Thr Lys	610 615	1872
GTA GCG TCT TTT GTT CCT GAG GGC TGG AAA TTG TTC GGC TCG CTG GGT Val Ala Ser Phe Val Pro Glu Gly Trp Lys Leu Phe Gly Ser Leu Gly	625 630 635	1920
TAT GCG AAA AGC AAA CTG TCG GGC GAC AAC AGC CTG CTG TCC ACA CAG Tyr Ala Lys Ser Lys Leu Ser Ser Asp Asn Ser Leu Leu Ser Thr Gln	645 650 655	1968
CCG CCG AAA GTG ATT GCC GGT GTC GAC TAC GAA AGC CCG AGC GAA AAA Pro Pro Lys Val Ile Ala Gly Val Asp Tyr Glu Ser Pro Ser Glu Lys	660 665 670	2016



SHEET 41/47

## FIG. 9H

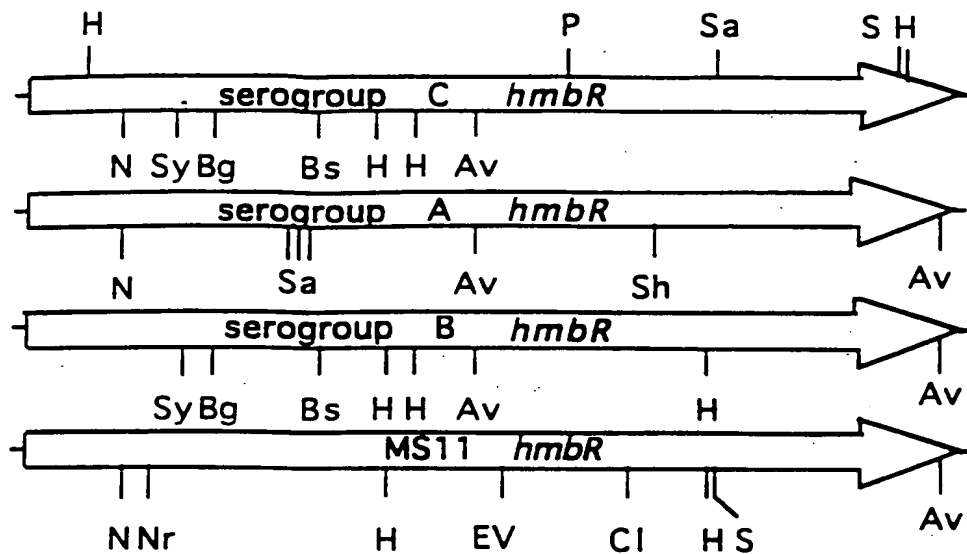
TGG GGT GTG TTC TCC CGC CTG ACT TAT CTG GGT GCG AAA AAG GCC AAA	2064
Trp Gly Val Phe Ser Arg Leu Thr Tyr Leu Gly Ala Lys Lys Ala Lys	
675	680
685	
GAC GCG CAA TAC ACC GTT TAT GAA AAC AAG GGC CGG GGT ACG CCT TTG	2112
Asp Ala Gln Tyr Thr Val Tyr Glu Asn Lys Gly Arg Gly Thr Pro Leu	
690	695
700	
CAG AAA AAG GTA AAA GAT TAC CCG TGG CTG AAC AAG TCG GCT TAT GTG	2160
Gln Lys Lys Val Lys Asp Tyr Pro Trp Leu Asn Lys Ser Ala Tyr Val	
705	710
715	
720	
TTT GAT ATG TAC GGC TTC TAC AAA CTG GCT AAA AAC CTG ACT, TTG CGT	2208
Phe Asp Met Tyr Gly Phe Tyr Lys Leu Ala Lys Asn Leu Thr Leu Arg	
725	730
735	
GCA GGC GTA TAT AAT GTG TTC AAC CGC AAA TAC ACC ACT TGG GAT TCC	2256
Ala Gly Val Tyr Asn Val Phe Asn Arg Lys Tyr Thr Thr Trp Asp Ser	
740	745
745	
750	
CTG CGC GGT TTG TAT AGC TAC AGC ACC AAC GCG GTC GAC CGA GAT	2304
Leu Arg Gly Leu Tyr Ser Tyr Ser Thr Thr Asn Ala Val Asp Arg Asp	
755	760
765	

SHEET 42/47

FIG. 9I

GGC AAA	GGC TTA	GAC CGC	TAC CGC	GCC TCA	GGC CGT	AAT TAC	GCC GTA	
Gly Lys	Gly Leu	Asp Arg	Tyr Arg	Ser Ala	Gly Arg	Asn Tyr	Ala Val	
770			775		780			2352

TCG CTG	GAT TGG	AAG TTT	TGA ATTCC	
Ser Leu	Asp Trp	Lys Phe	*	
785		790		2378

**Figure 10****SHEET 43/47**

## FIG. 11A

SHEET 44/47

HMBRA MKPLQMLPIAALVGSIFGNPVLAADEAAATETTPVKAIEKAVRVKGQORNAP 50  
 HMBRB MKPLQMPPIAALLGSI FGNPVFAXDEAAATETTPVKAIEVKA VRVKGQORNAP 50  
 HMBRC MKPLQMLPIAALVGSIFGNPVFAXDEAAATETTPVKAIEVKA VRVKGQORNAP 50  
 HMBRMS11 MKPLHMLPIAALVGSIFGNPVLAADEAAATETTPVKAIEKEVRVKDQLNAP 50  
 \*\*\*\*. \* \*\*\*\*. \*\*\*\*. \* \*\*\*\*. \*\*\*\*. \* \*\*\*\*. \* \*\*\*\*. \*

HMBRA AAVERNLNRIKQEMIRDNDKDLVRYSTDVGLSDSGRHQKGFVAVRGVEG NR 100  
 HMBRB AAVERNLNRIKQEMIRDNDKDLVRYSTDVGLSDSGRHQKGF A I RGVEGDR 100  
 HMBRC AAVERNLNRIKQEMIRDNDKDLVRYSTDVGLSDSGRHQKGF A VRGVEG NR 100  
 HMBRMS11 ATVERN LGRIQQEMIRDNDKDLVRYSTDVGLSDSGRHQKGF A VRGVEG NR 100  
 \*. \*\*\*\*. \*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*. \*\*\*\*. \*\*\*\*. \*. \*\*\*\*. \*

HMBRA VGVSIDGVNLPDSEENSLYARYGNFNSSRLSIDPELVNRIEIVKGADSFN 150  
 HMBRB VGVSIDGVNLPDSEENSLYARYGNFNSSRLSIDPELVNRIEIVKGADSFN 150  
 HMBRC VGVSIDGVNLPDSEENSLYARYGNFNSSRLSIDPELVNRIEIVKGADSFN 150  
 HMBRMS11 VGVSIDGVSLPDSEENSLYARYGNFNSSRLSIDPELVNRIEIAKGADSFN 150  
 \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*.

HMBRA TGSGALGGGVNYQTLQGRDLLDDRQFGVMMKNGYSTNRNREWTNTLGFGV 200  
 HMBRB TGSGALGGGVNYQTLQGRDLLLPERQFGVMMKNGYSTNRNREWTNTLGFGV 200  
 HMBRC TGSGALGGGVNYQTLQGRDLLLPERQFGVMMKNGYSTNRNREWTNTLGFGV 200  
 HMBRMS11 TGSGALGGGVNYQTLQGHDLLDDRQFGVMMKNGYSSRNREWTNTLGFGV 200  
 \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*. \*\*\*\*.

## FIG. 11B

SHEET 45/47

HMBRA SNDRVDAALLYQRRGHETESAGNRGYPVEGAGKETNIRGSARGIPDPSK 250  
 HMBRB SNDRVDAALLYQRRGHETESAGKRGPVEGAGSGANIRGSARGIPDPSQ 250  
 HMBRC SNDRVDAALLYQRRGHETESAGKRGPVEGAGSGANIRGSARGIPDPSQ 250  
 HMBRMS11 SNDRVDAALLYQRRGHETESAGERGYPVEGAGSGAIIRGSSRGIPDPSK 250  
 \*\*\*\*\*

HMBRA HKYHNFLGKIAYQINDNHRIGASLNGQQGHNYTVEESYNLTASSWREADD 300  
 HMBRB HKYHSFLGKIAYQINDNHRIGASLNGQQGHNYTVEESYNLLASYWREADD 300  
 HMBRC HKYHSFLGKIAYQINDNHRIGASLNGQQGHNYTVEESYNLLASYWREADD 300  
 HMBRMS11 HKYHNFLGKIAYQINDKHRIGPSFNGQQGHNYTIEESYNLTASSWREADD 300  
 \*\*\*\*\*

HMBRA VNRRRNANLFYEWMPDSNWLSSLKADFDYQTKVAAIN-KGSFPT-NYTT 348  
 HMBRB VNRRRNTNLFYEWTPESDRLSMVKADVDYQTKVSAVNKGSFPT-NYTT 349  
 HMBRC VNRRRNTNLFYEWTPESDRLSMVKADVDYQTKVSAVNKGSFPEDSST 350  
 HMBRMS11 VNRRRNANLFYEWTPDSNWLSSLKADFDYQTKVAAVNKGSFPTD-YST 349  
 \*\*\*\*\*

HMBRA WETEHKKKEVGEIYNRSMDTRFKRFTLRDLSHPLQLGGRRHLSFKTFAS 398  
 HMBRB WETEHKKKEVGEIYNRSMDTTFKRI TLRMDSHPLQLGGRRHLSFKTFAG 399  
 HMBRC LTRNYNQKDLEIYNRSMDTRFKRI TLRDLSHPLQLGGRRHLSFKTFAS 400  
 HMBRMS11 WTRNYNQKDLENIYNRSMDTRFKRFTLRMDSQPLQLGG-RHRLSLKTFAS 398  
 . . . . . \*\*\*\*\*

## FIG. 11C

SHEET 46/47

HMBRA RRDFENLRDDYYFSGRVVRTTSSIQHPVKTTNYGFSLSDQIQWNDVFSS 448  
 HMBRB QORDFENLRDDYYFSGRVVRTTNSIQHPVKTTNYGFSLSDQIQWNDVFSS 449  
 HMBRC RRDFENLRDDYYFSGRVVRTTSSIQHPVKTTNYGFSLSDQIQWNDVFSS 450  
 HMBRMS11 RREFENLRDDYYFSERSVRTTSSIQHPVKTTNYGFSLSDQIQWNDVFSS 448  
 \*\* \*\*\*\*\* \*\* \*\*\*. \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*

HMBRA RAGIRYDHTKMTPPQELNAECHACDKTPPAANTYKGWSGFVGLAAQLNQAW 498  
 HMBRB RAGIRYDHTKMTPPQELNADCHACDKTPPAANTYKGWSGFVGLAAQLSQTW 499  
 HMBRC RAGIRYDHTKMTPPQELNAECHACDKTPPAANTYKGWSGFVGLAAQLNQAW 500  
 HMBRMS11 RADIYDHTKMTPPQELNADCHACDKTPPAANTYKGWSGFVGLAAQLNQAW 498  
 \*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*

HMBRA RVGYDITSGYRVPNASEVYFTYNHGSIGNWLPNPNLKAERSTHTLSLQGR 548  
 HMBRB RVGYDVTSGFRVPNASEVYFTYNHGSIGNWLPNPNLKAERSTHTLSLQGR 549  
 HMBRC RVGYDITSGYRVPNASEVYFTYNHGSIGNWLPNPNLKAERTTHTLSLQGR 550  
 HMBRMS11 HVGYDITSGYRVPNASEVYFTYNHGSIGNWLPNPNLKAERSTHTLSLQGR 548  
 \*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*

HMBRA SEKGMLDANLYQSNYRNFELSEEQKLTTSGTPGCTEENAYYSICSDPYKEK 598  
 HMBRB GDKGTLNANLYQSNYRNFELSEEQNLTVSGTPGCTEEDAYYRCSDPYKEK 599  
 HMBRC SEKGTLNANLYQSNYRNFELSEEQKLTTSGDVSVCTQMNYYYGMCSPYSEK 600  
 HMBRMS11 SEKGTLNANLYQNNYRNFELSEEQNLTTSGDVSVCTQMNYYYGMCSPYSEK 598  
 \*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*\*\*\* \*\*

